

B3
Conf

resin to a semi-cured state, thereby producing a coated copper foil;

(c) bonding said coated copper foil of (b) to an inner layer board having inner wirings on one or both of the faces thereof, said thermosetting resin being laminated onto said inner layer board to form a multi-layer board;

(d) removing said copper foil from the multi-layer board of step (c) by etching with an alkaline etching solution; thereby leaving said alkaline refractory metal exposed;

(e) forming blind via holes in both the alkaline refractory metal and the thermosetting resin by directly irradiating said exposed alkaline refractory metal of (d) to remove the alkaline refractory metal and the thermosetting resin simultaneously with a CO₂ laser to form a multi-layer board in which via holes are formed; and

(f) forming outer wirings.

al

Please add the following new claims.

ad

11. A printed wiring board according to claim 10, wherein the outer wirings are formed by first electroless depositing copper and thereafter electrodepositing a copper layer on the multi-layer board of step (e) in which blind via holes are already formed, applying a photoresist on the copper layer and thereafter forming photoresist patterns, acid etching a part of the outer copper layer and the alkaline refractory metal, and removing the photoresist patterns.

12. A printed wiring board according to claim 10, wherein the outer wirings are formed by applying a photoresist on the multi-layer board of step (e) in which blind via holes are already formed and thereafter forming photoresist patterns, depositing copper wiring patterns with electroless and electrodeposition between the photoresist patterns, removing the photoresist patterns, and removing the alkaline refractory metal remaining between the photoresist patterns by acid etching.

13. A printed wiring board according to claim 10, wherein said copper foil has a roughness (Rz) in the range of 0.5-15 μm on the face on which said alkaline refractory metal is electrodeposited.

14. A printed wiring board according to claim 10, wherein the thickness of said copper foil is in a range of about 5-100 μm , and the thickness of the alkaline refractory metal layer is in a range of about 0.005-3.0 μm .

15. A printed wiring board according to Claim 10, wherein said alkaline refractory metal is selected from the group consisting of tin, zinc, and tin alloy, zinc and nickel alloy, and tin and copper alloy.

16. A printed wiring board according to Claim 10, wherein said copper foil of step (a) is electrodeposited copper foil or rolled copper foil.

17. A printed wiring board according to claim 10, wherein a chromate layer is further provided on said alkaline refractory metal layer.

18. A printed wiring board according to claim 10, wherein said thermosetting resin layer is a prepreg or a thermosetting resin film.

In the Specifications:

Page 3, line 14, delete "alkaline".

Page 6, line 6, delete "R₂" and insert -- Rz - .

Page 14, line 10, delete "(f)" and insert -- (g) -- .

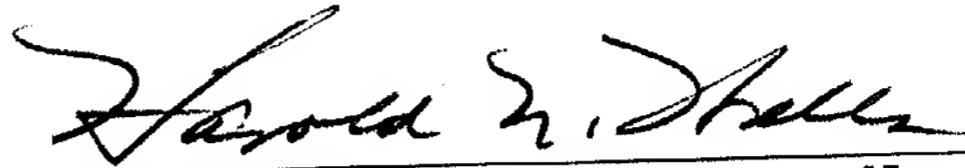
Page 14, line 13, after "alkaline" insert -- refractory -- .

REMARKS

After the above amendments have been entered, claims 10-18 will be in the application for examination. Several minor corrections have been made to the Specification to correct errors, as was done in the parent application. Claims 10-18 include the method of making a multi-layer printed wiring board

as described in the allowed claims of U.S. application
09/229,225.

Respectfully submitted,



Harold N. Wells, Reg. No. 26,044
JENKENS & GILCHRIST
1445 Ross Avenue, Suite 3200
Dallas, Texas 75202-2799
(312) 744-0090